

Configuration 1

FIG. 1A

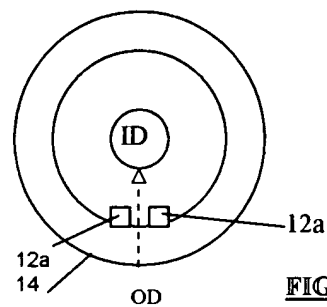


FIG. 1B

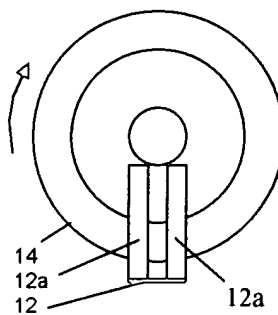
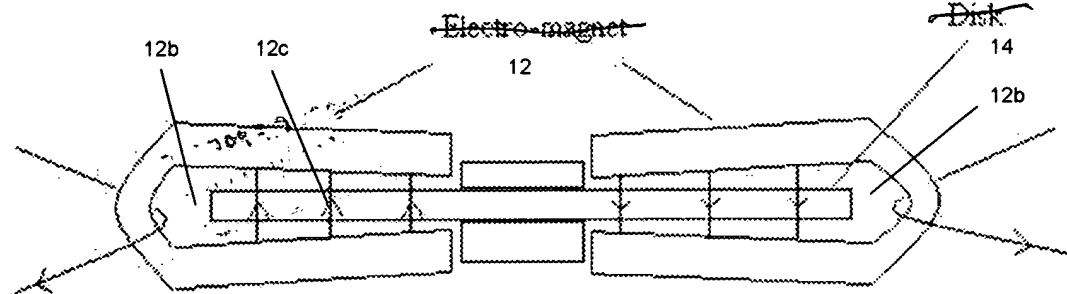


FIG. 1C



Configuration 2

FIG. 2A

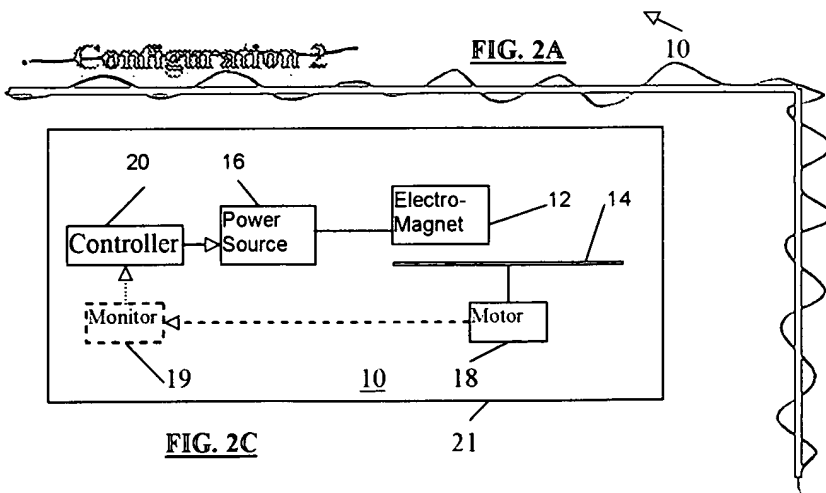


FIG. 2C

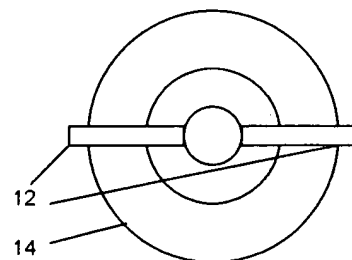
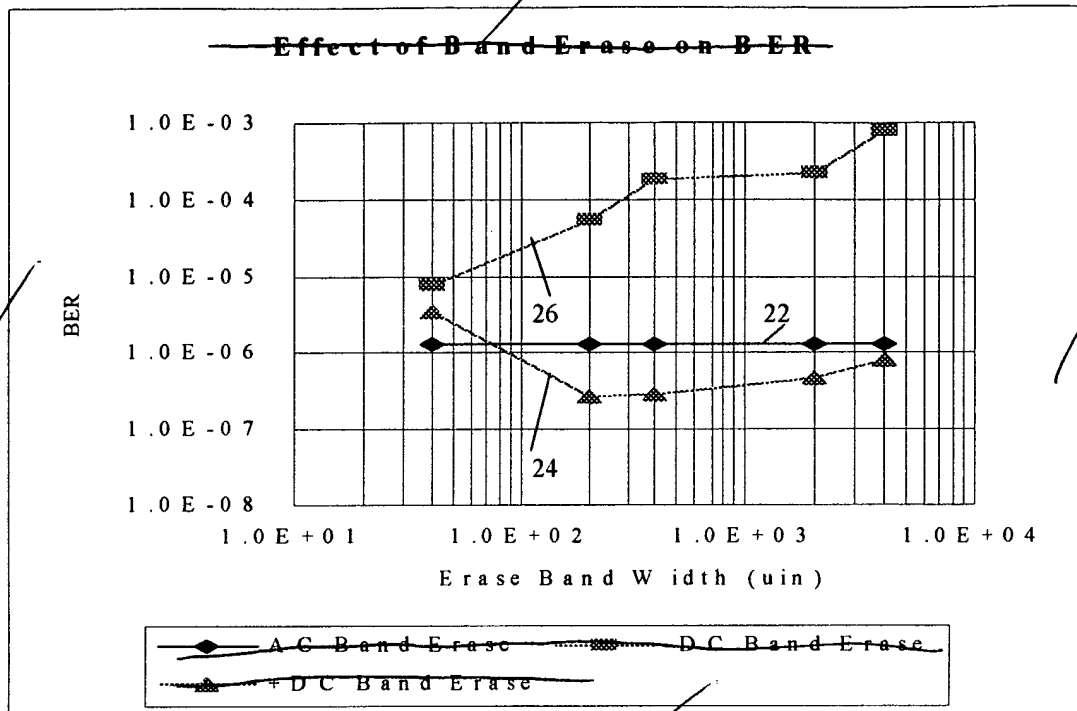
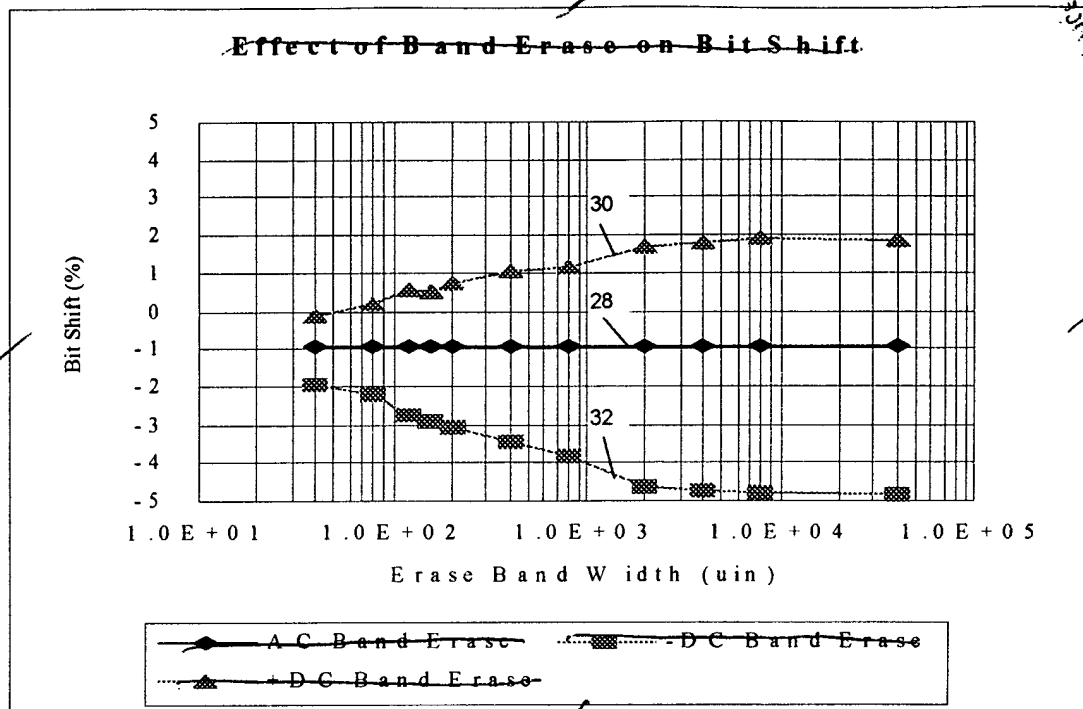


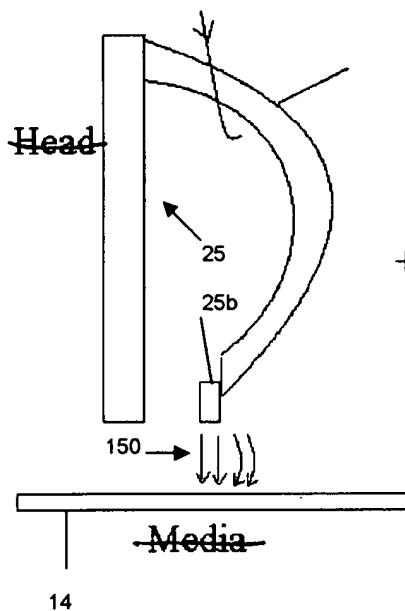
FIG. 2B



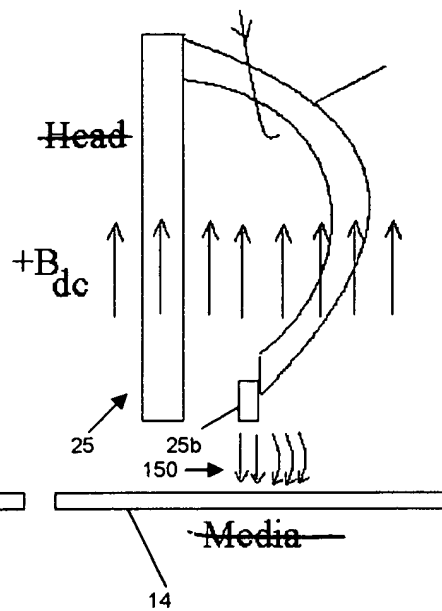
**FIG. 3A** - ~~Effect of Band Erase on BER~~



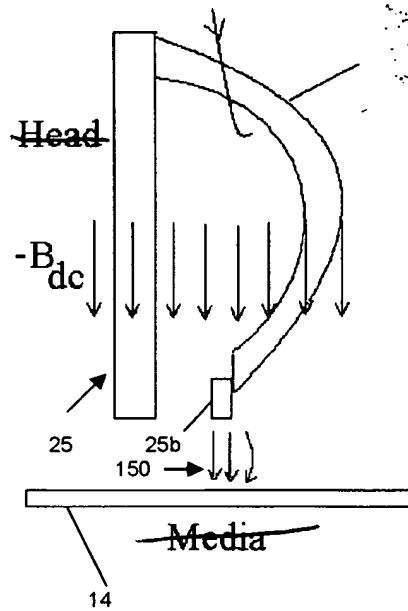
**FIG. 3B** - ~~Effect of Band Erase on Transition Shift~~



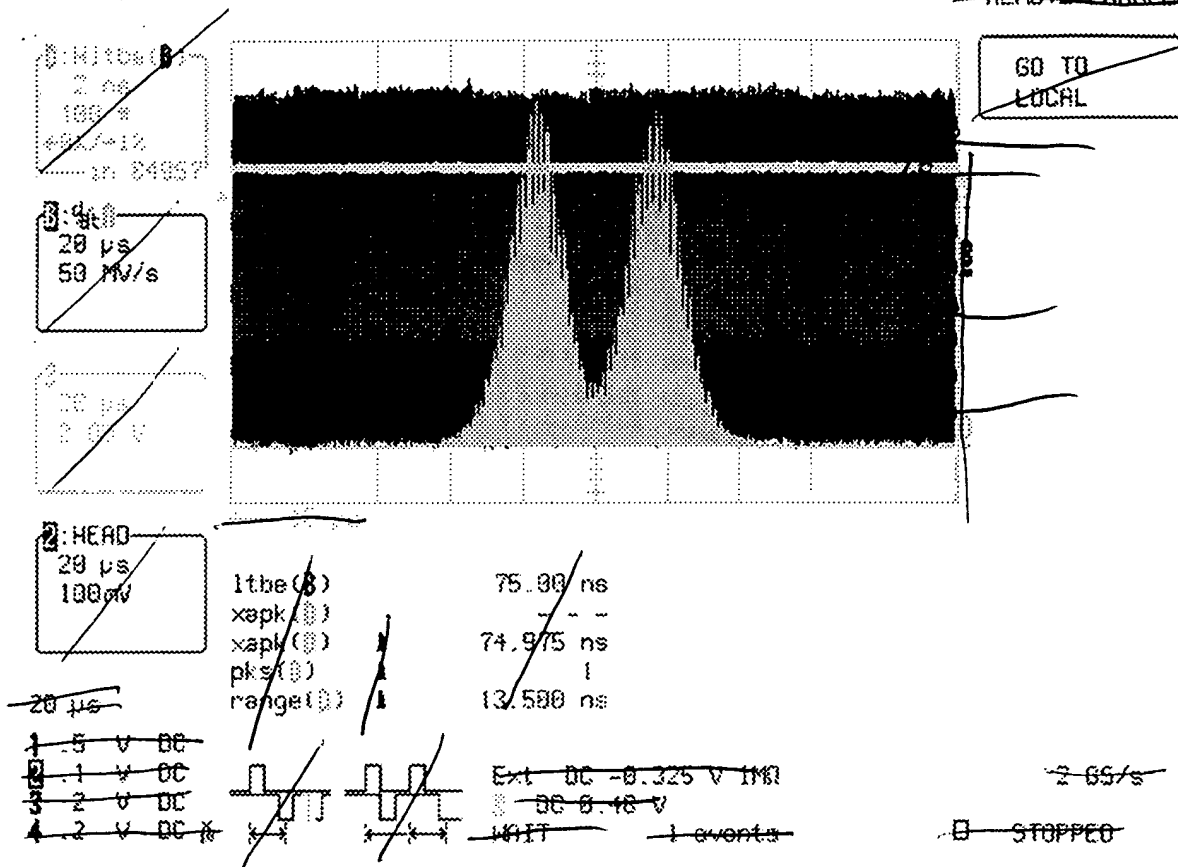
**FIG. 4C (AC-Erase)**



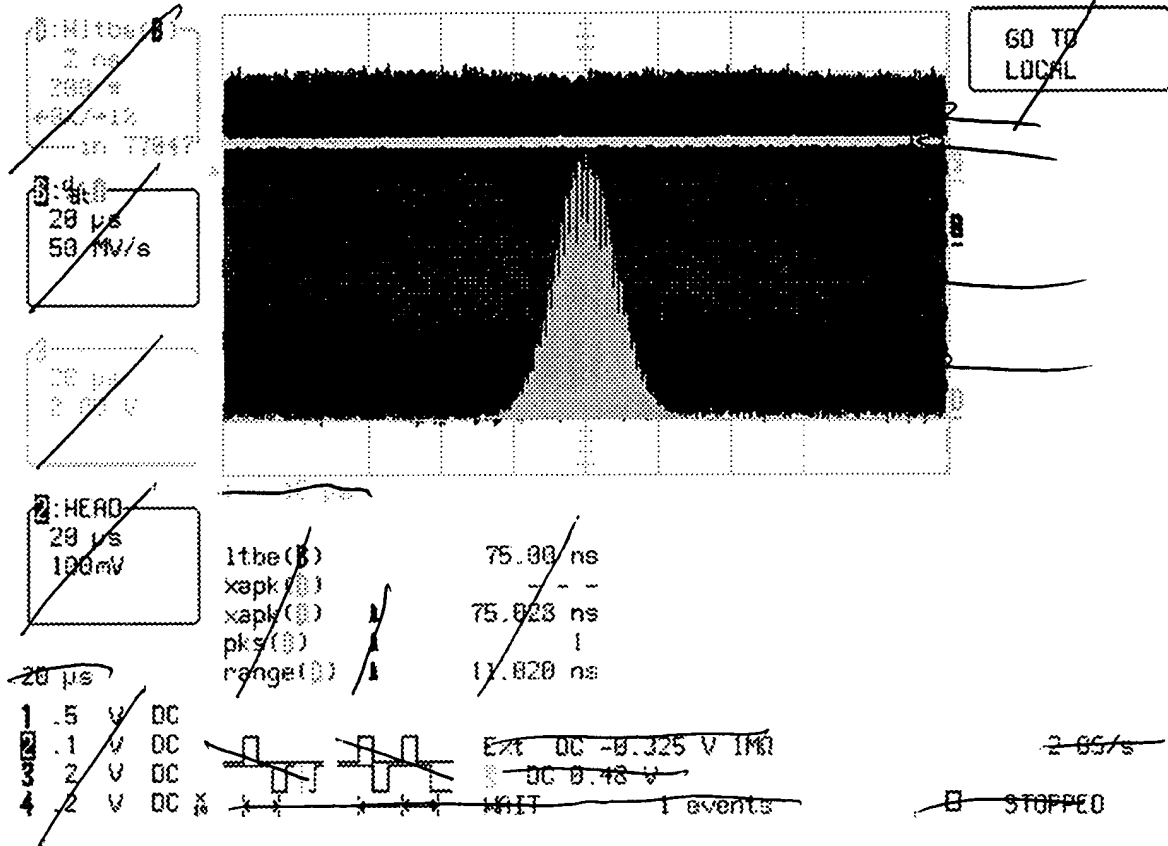
**FIG. 7B (+DC-Erase)**



**FIG. 7C (-DC-Erase)**



**FIG. 6A** (Prior Art) Readback signal timing histogram of differentiated data written after a conventional DC band erase.



**FIG. 6B** Read back signal measurement for a track written on as-received media from disk sputtering process without any net magnetization, wherein timing asymmetry is eliminated.

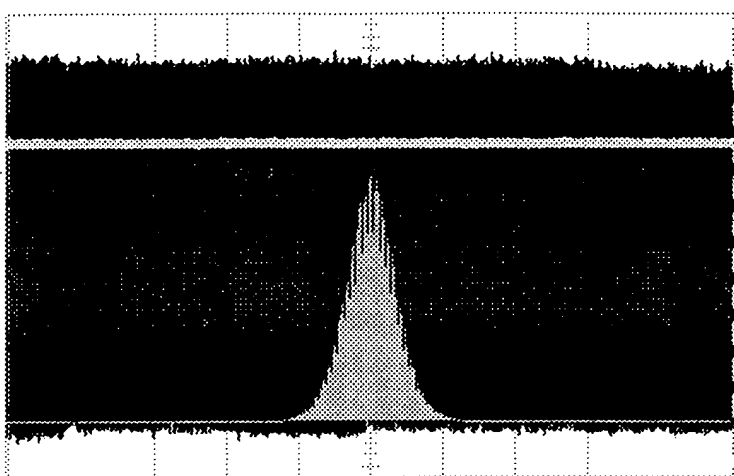
0: HIT (0)  
2.00  
0.00 ns  
2.00 V  
in 140443

3.4 ns  
20 ps  
50 MV/s

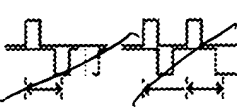
70 ps  
2.00 V

2: HEAD  
20 ps  
100 mV

20 ps  
1 5 V DC  
2 5 V DC  
3 2 V DC  
4 2 V DC



1tbe(0) 75.90 ns  
xapk(0)  
xapk(0) 74.929 ns  
pkz(0) 1  
range(0) 9.250 ns



EXT DC -0.325 V 1MBT  
DC 0.48 V  
WAIT 1 events

REMOTE ENABLE

GO TO LOCAL



2 GS/s

STOPPED

**FIG. 7D** Measurement of data written on media preconditioned by DG erasing with alternate polarity on adjacent tracks, wherein timing asymmetry is eliminated.